



## 2015-2016 District Nominee Presentation Form

### CERTIFICATIONS

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#### District's Certifications

The signatures of the district superintendent on the next page certify that each of the statements below concerning the district's eligibility and compliance with the following requirements is true and correct to the best of the superintendent's knowledge.

1. The district has been evaluated and selected from among districts within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental education.
2. The district is providing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district wide compliance review.
3. OCR has not issued a violation letter of findings to the school district concluding that the nominated school district has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan to remedy the violation.
4. The U.S. Department of Justice does not have a pending suit alleging that the school district has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
5. There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of Education monitoring report that apply to the school district in question; or if there are such findings, the state or school district has corrected, or agreed to correct, the findings.
6. The district meets all applicable federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

### U.S. Department of Education Green Ribbon Schools 2015-2016 District Sustainability Award

Name of Superintendent: Dr. Barbara Jenkins

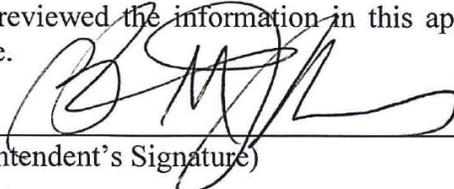
District Name: Orange County School District

Address: 445 W. Amelia Street, Orlando, Florida 32801

Telephone: (407)317-3200 Ext. 2003209 Fax: (407)317-3401

Web site/URL: <https://www.ocps.net/Pages/default.aspx> E-mail: <mailto:Barbara.Jenkins@ocps.net>

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate.

 \_\_\_\_\_ Date: 1/21/16  
 (Superintendent's Signature)



## Nominating Authority's Certifications

The signature by the Nominating Authority on this page certifies that each of the statements below concerning the district's eligibility and compliance with the following requirements is true and correct to the best of the Authority's knowledge.

1. The district is one of those overseen by the Nominating Authority which is highest achieving in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental education.
2. The district meets all applicable federal civil rights and federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

Name of Nominating Agency: Florida Department of Education

Name of Nominating Authority: Commissioner Pam Stewart

I have reviewed the information in this application and certify to the best of my knowledge that the school meets the provisions above.

A handwritten signature in black ink that reads "Pam Stewart". The signature is written in a cursive style.

Date: 1/21/16

(Nominating Authority's Signature)

## SUMMARY AND DOCUMENTATION OF NOMINEE'S ACHIEVEMENTS

Provide a coherent summary that describes how your district is representative of your jurisdiction's highest achieving green school efforts. Summarize your strengths and accomplishments, being sure to cover equally all three Pillars. Then, include concrete examples for work in every Pillar and Element. Only districts that document progress in every Pillar and Element can be considered for this award.

## SUBMISSION

The nomination package, including the signed certifications and documentation of evaluation in the three Pillars should be converted to a PDF file and emailed to [ed.green.ribbon.schools@ed.gov](mailto:ed.green.ribbon.schools@ed.gov) according to the instructions in the Nominee Submission Procedure.

OMB Control Number: 1860-0509

Expiration Date: March 31, 2018

### Public Burden Statement

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is 1860-0509. Public reporting burden for this collection of information is estimated to average 37 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The obligation to respond to this collection is required to obtain or retain benefit P.L. 107-110, Sec. 501, Innovative Programs and Parental Choice Provisions. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the U.S. Department of Education, 400 Maryland Ave., SW, Washington, DC 20202-4536 or email [ICDocketMgr@ed.gov](mailto:ICDocketMgr@ed.gov) and reference the OMB Control Number 1860-0509. Note: Please do not return the completed ED-Green Ribbon Schools application to this address.

## Orange County School District Summary

Orange County Public Schools (OCPS), a large urban school district, is the fourth largest in Florida. OCPS is Central Florida's second largest employer, after Disney, with over 23,000 permanent and part-time employees. The nearly 200,000 students come from 200 countries and speak 167 different languages and dialects.

The five district goals are: 1) Intense Focus on Student Achievement, 2) High-Performing and Dedicated Team, 3) Safe Learning and Working Environment, 4) Efficient Operations, and 5) Sustained Community Engagement. Long range sustainability strategic objectives and targets across the district have been developed to support these district goals.

In both Health Services and Family and Community Involvement, the district has been highly regarded for its community referral processes, quality improvement process of the School Health Advisory and Wellness Committee, and the continuous recruitment and training for varied volunteer opportunities. OCPS partners with nearly 30,000 volunteers and 1,035 school-business partnership agreements, which link businesses and organizations with schools to share resources to successfully prepare all students for the future. In 2015, the district was awarded the Florida Healthy School District Gold Award for the second time.

OCPS has achieved an impressive inventory of Green Schools with a total of thirty-six schools designed and constructed to a sustainable rating system per Section 255.2575, F.S. This includes four Leadership in Energy and Environmental Design (LEED) ratings, twenty-eight Green Globe certifications, and four Florida Green Building Coalition projects. In addition, another sixteen schools currently in design/construction are anticipated to achieve a sustainable rating system.

In 1996, OCPS implemented a district-wide indoor air quality management program. The Environmental Compliance Department implements the OCPS Indoor Air Quality Management Plan, trains OCPS personnel in all aspects of good indoor air quality, assists in the investigation and remediation of potential indoor air quality problems, and verifies the effectiveness of the plan and corrective measures.

The recycling program, which began in 1991, has saved more than \$600,000 over the last three years. The district recycles universal waste, metal, petroleum waste, electronic waste, yard waste, used tires, textbook, district records, single-stream materials, and construction-site waste. Last year, the district's recycling program kept over fifty-five million pounds of materials out of local landfills.

OCPS developed the Green Schools Recognition Program (GSRP) in 2013, an incentivized behavior modification program to create cultures of sustainability throughout the district. The program is open to all K-12 schools. Targeted categories include: Energy-Efficiency, Transportation/Waste/Water Reduction, Health and Well-Being, School Grounds and Connections, and Innovation. Some of the outcomes for these categories include: nutrition, school gardens, security, air quality, creation of wildlife habitats, and connection with community partners. Each aspect of the GSRP has an educational component.

After two successful years of GSRP, nine schools have received distinguished achievement levels. The program continues to expand community involvement with the addition of three partnerships to the previous thirteen community partnerships.

OCPS celebrated its third Green Day Event by having service-learning students from Timber Creek High School design and lead activities for a fun, educational day to celebrate the top Green Schools. Local municipalities and vendors also participated in the event to help educate students about the environment and community involvement.

Surplus Services reused over fifty-eight percent of the district-wide items that were turned in during fiscal year 2015. The reissue of surplus furniture and equipment to the schools reduces trips to the landfill and has saved the district nearly \$2.2 million dollars. The total cost benefit through surplus sales and reissue for the 2014-2015 school year was \$3,570,492.

OCPS's Energy Administration Department conducts regular audits in all schools and follows up with any efficiency recommendations. The Energy Administration Department uses Energy Cap Pro™ software to properly manage utility billing data, identify consumption anomalies, and savings opportunities. OCPS has developed a systematic approach to energy rebates by creating an energy rebate matrix to easily identify and pursue all rebate opportunities that comply with district design standards. These efforts have earned OCPS rebates over \$1.8 million since starting the program in 2013. These impressive results contributed to OCPS being selected for the Duke Energy Management Award in 2014. The energy rebate is used to fund the district's GSRP.

OCPS has developed and implemented curriculum and choice programs specifically designed to integrate environmental and sustainability topics into the K-12 academic experience. The District provides numerous tools and opportunities for teachers and students to be engaged in environmental education. Grade level appropriate lesson plans are used which tie environmental education to Florida Standards. For example, the middle and high schools have curriculum that combines chemistry, the environment, and energy to predict the impact of individuals on environmental systems and examine how human lifestyles affect sustainability. Additionally, environmentally themed and STEM choice and career education programs are also offered to students in elementary, middle and high schools.

## Green Ribbon School District Application (2015-2016)

**District Name:** Orange

**Street Address:** 445 W. Amelia Street, Orlando, Florida 32801

**Website:** [www.ocps.net](http://www.ocps.net)

**Facebook page:** <http://www.facebook.com/OrangeCountyPublicSchools>

**Superintendent Name:** Dr. Barbara Jenkins

**Phone Number:** 407-317-3200 x2003209

**Superintendent Email Address:** barbara.jenkins@ocps.net

**Lead Applicant Name:** Jennifer Fowler, Director, Environmental Compliance

**Lead Applicant Email:** jennifer.fowler@ocps.net

**Phone Number:** 407-317-3939

**Number of Elementary Schools:** 125

**Number of Middle Schools:** 35

**Number of High Schools:** 19

**Number of Other Schools:** 11 (3 K-8, 4 Exceptional Education Schools, 4 Technical Schools)

**Total Sq. Ft.:** 29,520,299 Total Net SF

**Total Students Served:** 197,249 (All including charter)

**How would you describe your district?** ( X ) Urban

**Does your district serve 40 percent or more students from disadvantaged households as measured by percent receiving FRPL?** ( X ) Yes

**Percent FRPL:** 66.5%

*Cross-Cutting Question: Participation in green school programs*

**If your district is participating in a local, state, or national program, such as Florida Green School Awards, EPA ENERGY STAR Portfolio Manager, Eco-Schools, Project Learning Tree or others, which asks you to benchmark progress in some fashion in any or all of the pillars, then indicate the program(s), level(s) achieved, and year(s):**

2015

- Florida Green School Award – District Silver Award
- Sustainable Florida 2015 Best Practice Awards Green Building – Castle Creek Elementary School
- Florida Governor’s Sterling Award – Human Resources Division

2014

- Florida Green School Award – District Award
- Florida Green School Award – School Award (Finalist)
- Florida Green School Award – Legacy Award (Teacher)
- Green Schools Alliance – Climate Steward Level
- Florida Governor’s Sterling Award – Operation Division
- Broad Award Winner

2013

- EPA Energy Star Label for two high schools

2012

- Twelve more OCPS schools earned the Energy Star Label for buildings.

#### 2011

- Colonial High School became first OCPS school to earn the Energy Star Label for buildings.
- Council of Great City Schools – Top Performing District in the Management of Its Business Services

#### 2009

- OCPS has been an Energy Start Partner since 2006.
- All schools have been and continue to be Energy Star rated.

**If your district received any awards for facilities, health or environment, list the award(s) and year(s) below:**

#### 2015

- Clean Air Award – Metro Plan Orlando
- Orange County Public Schools is named Florida Healthy School District Gold Award

#### 2014

- Clean Air Award – Metro Plan Orlando
- Energy Management Award – Association of Energy Engineers
- Florida Green School Award – District Award
- Florida Green School Award – School Award (Finalist)
- Florida Green School Award – Legacy Award (Teacher)

#### 2013

- Orange County Public Schools is named Florida Healthy School District Gold Award
- Orlando Sentinel's Culinary Hall of Fame
- Timber Creek High School received the Florida Green School Class Award
- U.S. Environmental Protection Agencies Great Start Award
- Duke Energy's Florida Energy Partner of the Year
- Two middle and high school teachers won the statewide teacher of the year awards for best physical education and one was also named as the recipient for the southern district states.

#### 2012

- Six OCPS schools are recognized for their energy efficiency efforts by the Central Florida Energy Efficiency Alliance as a result of participating in the CFEEA Kilowatt Crackdown Program.
- Florida Green School Teacher Award
- USDA Best Practice Awards, Farm to School

#### 2011

- Florida Healthy School District Silver Award
- USDA Best Practice Awards, Best Utilization of Commodities
- Gold Fame Award, National School Food Service Association
- Silver Plate, National Restaurant Association
- Ocoee High School was recognized as a returning class finalist for the Florida Green School Award

#### 2010

- USDA Best Practice Awards, Healthy School Environment

#### 2009

- USDA Best Practice Awards, Customer Service 2009
- Rising Star Fame Award, National School Food Service Association
- OCPS is recognized by Orange County Government as a B.E.S.T. (Business for an Environmentally Sustainable Tomorrow) Partner for supporting efforts in water conservation

2001

- Fellow of the American Dietetic Association

### **Pillar I: Reduced Environmental Impact and Cost**

**Describe how your district is reducing environmental impact and costs by reducing or eliminating greenhouse gas emissions. Examples may include energy conservation program, 3R program, non-idling policy, reduced bus idling minutes, purchase of renewal energy credits, alternative transportation, green purchasing, etc.**

The OCPS long range sustainability strategic objectives and targets include recycling, energy, water, and fuel conservation. These objectives and targets during the 2014-2015 school year resulted in avoiding \$3,171,687 and more than 25 million pounds of carbon dioxide emissions.

#### Energy Conservation

Orange County Public School district has had an Energy Administration department since June, 2000. The department is tasked with working to make the school district as energy efficient as possible. The department analyzes all electric, water, sewer, irrigation, propane and natural gas utility billing using ECAP energy accounting software. The Energy Administration Department conducts regular level 1 energy audits on all school buildings every year. OCPS district policy limits the hours of HVAC operation in an occupied mode to 10 hours for elementary schools, 11 hours for middle schools and 12 hours for high schools. The school district also sets back the building temperatures to 80 degrees during the cooling season, and 55 degrees during the heating season when the buildings are unoccupied.

In 2010, OCPS implemented Management Directive B-10, Energy & Utility Conservation which:

- Provides guidelines for facilities (schools and district offices) to operate during the cooling and heating seasons;
- Encourages schools to practice energy conservation measures;
- Encourages energy efficient technologies and methodologies; and
- Encourages partnerships with local utility providers.

#### Transportation

In the last two fiscal years, OCPS has had an avoidance of \$2.2 million dollars in fuel costs and kept approximately 7,862 metric tons of carbon matter out of the air. Through the capital replacement plan the average age of buses is 5.5 years. Older buses which are used as part of the spare fleet are equipped with particulate filters. In addition, the Transportation Department has strategies to increase the average daily occupancy per bus, an anti-idling policy which utilizes GPS system which reports threshold "events" over 5 minutes or 10 minutes for buses with special needs children. Finally, as of January 2015 the Transportation Department transitioned to 100% biodiesel.

#### 3R Program

As previously discussed, the Surplus Department has a goal to maximize the amount of investment recovery through the reuse of surplus materials. Maximizing the reuse of assets assist to focus dollars on classroom instruction. The Surplus staff promotes the reutilization of comprehensive marketing strategy that blends email, website postings, public store advertisement, flyers, and business cards. As a result, over the last two years the district has realized a cost benefit of more than \$6 million dollars.

### Green Purchasing

The mission of OCPS Food & Nutrition Services (FNS) is to provide access to quality nutritious meals in a sustainable environment; to enhance and support all students and educators' ability to achieve academic excellence, while forming healthy life long eating habits. Through green purchasing Food & Nutrition Services used 109,545 cases of recyclable or biodegradable items at a total cost of \$2,780,475 last school year. All utensils purchased at all school levels were biodegradable.

#### **Amount of kWh saved:**

(provide baseline data from up to three years prior)

- FY15: 55,718,387 kWh
- FY14: 49,918,409 kWh
- FY13: 51,513,536 kWh

#### **Total value of the savings (in US\$):**

(provide baseline data from up to three years prior)

- FY15: \$6,039,873.14
- FY14: \$5,296,343.00
- FY13: \$5,372,861.78

#### **Total value of savings adjusted per student (e.g. calculated by COFTE):**

(provide baseline data from up to three years prior)

- FY15: \$34.45/student
- FY14: \$30.73/student
- FY13: \$39.34/student

**Describe how your district is improving water quality, efficiency and conservation. Examples may include decrease in domestic water use, irrigation water use, reduction of storm water run-off, native landscaping, rain water cisterns and/or rain barrels.**

OCPS has continued to lower the total annual consumption of gallons of water per square foot over the last three fiscal years. The annual average has decreased from 25.61 in FY12 to 23.39 in FY15, which is approximately an 9% reduction in consumption.

### Grounds

OCPS has taken several steps to minimize the growth in the annual rate of water consumption. The Grounds Department Irrigation Team piloted a centralized irrigation control system at a middle school and at an elementary school. Since 2011, the middle school has saved over 9 million gallons of potable water each year. The elementary school has saved over 1 million gallons of water since 2013. Xeriscaping and centralized irrigation control systems are now a part of the School Design Guidelines for all new construction projects.

OCPS also follows irrigation weekly watering restrictions and waters the Florida Friendly established Landscape plant material and turf only one day a week year round.

Additionally, the Grounds Department piloted three high schools in 2013 by providing the cultural practices on the football fields. This program not only helps to break up compaction making the fields safer for the athletics it also opens the soils so more water, fertilizer and oxygen can also get into the soil.

The pilot program resulted in a compaction reduced by a minimum of 9% but the soil was also opened to allow more water, fertilizer, and oxygen into the soil and not down the stormwater system. As a result, in 2014 the Grounds Department expanded the program to a total of six high schools.

#### Stormwater

OCPS developed a compliance program to ensure construction projects are meeting all federal, state and local environmental requirements at OCPS construction sites. Site inspections began in 2012 to ensure that stormwater erosion and sedimentation controls are maintained throughout the project.

#### **Amount of gallons saved:**

(provide baseline data from up to three years prior)

- FY15: 21,479,000gal
- FY14: 20,887,000 gal
- FY13: 19,703,000 gal

#### **Total value of cost savings:**

(provide baseline data from up to three years prior)

- FY15: \$205,691.51
- FY14: \$188,173.00
- FY13: \$176,932.26

**Describe how your district is reducing waste production. Examples may include green purchasing, using post-consumer material office paper; reusable lunch trays; hands-free dryers; composting; 3R programs; reduced number of garbage dumpsters, green cleaning products, e-newsletter, ecologically beneficial uses of grounds; and methods of disposal for solid and hazardous wastes.**

#### Surplus Operations

The purpose of the Surplus Operations Department is to re-distribute good quality used furniture and equipment to district schools and work locations. In addition, the district sells or recycles surplus materials through:

- Public store sales
- Live auction sales
- Online auction sales
- E-waste Recycle
- Recycle of metal material

Surplus Services reused over 58% of the districtwide items which were turned in during fiscal year 2015. The reissue of surplus furniture and equipment to the schools reduces trips to the landfill and has saved the district nearly \$2.2 million dollars as a cost avoidance measure. The total cost benefit through Surplus sales and reissue for the 2014-2015 school year was \$3,570,076. This means, if OCPS had no Surplus Operations program, this is the amount of cash that would have been spent to provide new equipment and furnishings.

### Hazardous Waste Reduction

Beginning in 2009, OPCS began taking steps in reducing chemical waste throughout the district. The district participated in the SC3 campaign for high schools and middle schools and initiated annual science teacher training during the 2009/2010 school year. The results of SC3 was more than 15,000 lbs of chemical waste removed from the district. In 2011, the high school audit program began which ultimately resulted in a district wide strategic goal of reducing chemical waste through efficient disposal and reuse. In FY15, the district diverted 9% of the total chemical waste.

### Green Purchasing

Through green purchasing Food & Nutrition Services used 109,545 cases of recyclable or biodegradable items at a total cost of \$2,780,475 last school year. All utensils purchased at all school levels were biodegradable.

### **Amount of waste production saved (calculated in cubic yards):**

(provide baseline data from up to three years prior)

- FY15: 247,490 CY
- FY14: 105,585 CY
- FY13: 52,595 CY

### **Total value of cost savings:**

(provide baseline data from up to three years prior)

- FY15: \$327,571
- FY14: \$289,434.98
- FY13: \$77,957.00

### **Recycling Rate (percentage):**

(provide baseline data from up to three years prior)

- FY15: 53%
- FY14: 45%
- FY13: 28%

**Use the formulas below to calculate amount of materials recycled, amount of waste disposed, and recycling rate.**

1. Amount of Materials Recycled (for calendar year **2014-2015**)

a. Category A = Paper (including newspaper, corrugated paper, cardboard, office paper, and other paper), metals, glass, plastics, textiles, rubber materials, and mulch = **1,330 tons**

b. Category B = Food waste, electronics, tires, construction & demolition debris = **26,252 tons**

2. Amount of Waste Disposed = **24,547 tons**

3. Recycling Rate = (Line 1a + Line 1b) / (Line 2 + Line 1a + Line 1b) x 100 = **53%**

**Describe how your district is using alternative transportation. Examples may include compact natural gas busses, hybrid vehicles, carpool program, parking designated for fuel efficient vehicles, percentage of student and staff walk/bike to and from school.**

Transportation is a cornerstone of the school, community, sustainability, and environmental stewardship. OCPS transports 65% of the student population. The Transportation Department upholds these qualities through its commitment to sustainable practices, leadership principles, and accessibility.

The Transportation Department's strategic goals are to improve operations and avoid the usage of diesel fossil fuel. Efforts by the department included:

- Reduction of idling time for all daily route buses;
- Reduction in diesel fuel consumption by replacing with biodiesel; and
- Capital replacement plan for buses.

As of January 2015 the Transportation Department transitioned to 100% biodiesel for the over one thousand one hundred school buses. OCPS uses 2.8 million gallons of diesel fuel annually, or about 15,000 gallons daily. The total conversion to biodiesel demonstrates significant environmental benefits with a minimum increase in cost for fleet operations and other consumers.

In FY15, the district purchased approximately 200 white fleet vehicles to replace vehicles with an average age of 8.2 years. Included with the purchase the district has add eleven hybrid vehicles to the fleet.

Additionally in October 2015, over 40 schools participated in the International Walk to School Day and had over 450 participants. Community partnerships included local police departments, SAFE KIDS AND SAFE ROUTES, Winter Park Health Foundation, PTAs, and local restaurants. Promotional outreach was covered by local television stations, newsletters, and homeowners associations.

**Reduction of fuel cost (percentage):**

(provide baseline data from up to three years prior)

- FY15: 10.7%
- FY14: 7.9%;
- FY13: 5.3%

***Pillar II: Improve the Health and Wellness of Students and Staff***

**Describe how your district improves the health and wellness of students and staff by implementing a school environmental health program. Include integrated pest management, contaminant controls and ventilation, asthma controls, indoor air quality, moisture control, and chemical management. List the number of schools that have earned the Florida Asthma Friendly School Award.**

Integrated Pest Management (IPM)

OCPS IPM uses common sense strategies to reduce the sources of food, water, and shelter for pests. Careful usage of pesticides ensures the district follows the district goals of a safe learning and working environment. The OCPS IPM program is a collaborative effort between in-house staff, school staff, and our service provider.

The Grounds and Pest Control Department maintains and monitors a web based Pest Portal program for all kitchens within OCPS. Every week the kitchen managers check pheromone traps put in strategic areas of the kitchen for roaches and other potentially harmful pests. They log in to the portal and record their

findings which is then monitored by the pest management coordinator who then addresses the issues found. This system allows Pest Control to keep a close eye on our kitchens to avoid any type of infestations and to ensure the health and safety of our students and staff.

Beyond the pest portal system a Pest Control Escalation Process is in place. This allows the district to address any live sightings of pests in the kitchens at any given time. This process ensures a prompt response depending on the level (1hr, 4hr, and 24hr) and specialized treatment depending on the type of live pest sighted in the kitchen areas.

#### Indoor Air Quality

In 1996, OCPS implemented a district-wide indoor air quality (IAQ) management program. The objective of the Environmental Compliance Department (ECD) is to respond to all indoor air quality issues within three days of a complaint. ECD works closely with the Facilities Maintenance Department and schools to ensure corrective actions are addressed and completed within 50 days of the complaint. OCPS follows the U.S. EPA guidelines for mold remediation and utilizes specialized service providers to ensure the safety and health of staff and students. In addition, ECD has created online training for Facilities Maintenance staff on how to properly respond to mold. ECD maintains an intranet site on IAQ which provides proactive approaches for teachers and resources where they can go for additional information. During the summer of 2015, OCPS continued the summer IAQ inspection program. This required all schools to inspect every room weekly for water intrusion, mold growth, and malfunctioning air-conditioning systems. Schools were then required to report the findings to ECD and to the Facilities Maintenance team. As a result, the district reduced IAQ concerns of staff during the summer by nearly 20%.

In addition, as part of the IAQ assessment the Environmental Compliance Department has created a characterization matrix which consists of qualitative and quantitative evaluations that indicate the results of an IAQ assessment category as a minor, moderate, or major priority for further assessment or risk management activities. The summer inspections resulted in a 100% decrease in major IAQ findings and a more than a 40% reduction in minor or moderate IAQ findings compared to the summer of 2014.

Finally in 2011, the district developed a memorandum on the usage of aerosol air fragrance devices that cannot be used. The use of air fresheners does not correct indoor air quality problems and the districts goal is not to mask concerns but to address and correct any issues.

#### Asbestos

Of the 184 plus schools OCPS has only 43 remaining active Asbestos Hazard Emergency Response Act (AHERA) management plans. The planned outcome is a clean environment, safe workplace, and regulatory agencies compliance.

#### Chemical Management

The Environmental Compliance Department has the responsibility to track and compile a complete inventory for all hazardous materials purchased, used, and stored within the school system. All district schools and facilities are required to complete and update their annual chemical inventory at the beginning of each school year. This information has helped the district to understand the chemical usage in schools and to be aware of the location in the event of an emergency.

Since 2009, the ECD train all science teachers on proper "Science Chemical Management". This training is required annually and provides training on:

- Storage rules;
- Chemical inventory;
- Safety Data Sheets;
- Emergency situations;
- Spill kits;
- Approved chemicals;
- Prohibited chemicals;
- Proper chemical disposal; and
- Prohibited drain disposal.

Safety Data Sheets (SDS) are maintained online through an independent service provider which allows all employees access to the chemicals in their work locations. The program is important to the Facilities Maintenance Department. The ability for this team to access the SDS anywhere within OCPS provides staff with additional resources for safety.

**Describe policies, practices and procedures your district has in place to support the Coordinated School Health approach. Examples may include completed Florida Healthy School District Assessment and/or recognition, innovative district Wellness, physical education, and bullying prevention policies.**

#### School Health & Well-being

School wellness is supported by the OCPS school board in school wellness and tobacco free policies.

In support of the school board policies, OCPS created the School Health & Well-being Advisory Council (SHWAC) in 2001. The mission is to provide a supportive culture to create and promote healthy and safe behaviors in the school and community to ensure student success. The committee is composed of OCPS district staff, Orange County Health Department, parents, school administrators, a school board appointee, and community health partners.

Healthy School Teams are comprised of staff, parents and community members who represent the eight components of the coordinated school health model.

In 2013 and 2015, OCPS was recognized as a Florida Healthy School District Gold Awardee.

#### Bullying Prevention

The OCPS Act 4 Change campaign is focused on stopping bullying now. The commitment of parents and community members is vital to developing and sustaining effective prevention programs. The Act 4 Change website includes:

- Tips for parents,
- Parent bullying prevention videos,
- Public service announcements,
- Cyber-bullying, and
- Speak out hotline.

#### District Wellness

The OCPS Employee Wellness Program (EWP) is designed to reach all employees at various levels of interest and need. The district offers preventive and disease management activities in two parallel tracks of complementary services (clinical/non-clinical).

The EWP offers support in a variety of disease states including asthma, diabetes and heart disease, along with programs in smoking cessation, well-pregnancy, weight loss and special screenings.

OCPS has a full-time district wellness coordinator whose time is devoted to employee wellness. The district has an employee wellness representative at each work site (199).

The district provides health fairs & screening opportunities for employees each school year. Screening approximately 500 employees annually. Onsite flu shot clinics provided at 34 district locations each year and approximately 4,000 flu shots are administered to employees each year.

#### Health Education Classes

The Annual School Health Report by the Orange County Health Department indicated that during the 2014-2015 school year, 6,889 health education classes were provided by nurses for 23,374 student participants, 47 parents and 335 staff members. These classes included physical education, injury prevention/safety, alcohol/tobacco/drug abuse, human sexuality/pregnancy prevention, and staff in-service/staff wellness. In addition, 4,124 social interventions were provided for 3,445 students, 1,024 parents and 135 staff members. These included violence prevention/conflict resolution, nutrition, general health, and mental health/self-esteem interventions.

K-12 Health and Physical Education teachers are provided with course-specific Scope and Sequence documents and Measurement Topic Plans to guide their instruction and formative assessment practices. Common Final Exam Outlines provide 5th-12th grade teachers with the essential information necessary to prepare their students for a district summative assessment. Professional Learning Communities and professional development trainings are regularly offered for teachers on various topics including human sexuality education; drug and alcohol prevention; digital resources; curricula i.e. SPARK PE and Online Physical Education Network; implementing Next Generation Sunshine State Standards through activities such as yoga, lacrosse, golf, badminton, pickle ball, table tennis, disc golf, soccer, bicycle safety, etc.; and brain breaks.

The Youth Risk Behavior Survey is administered to middle and high school students to monitor the six types of health-risk behaviors that contribute to the leading causes of death and disability among youth and adults. The data is used to assess trends, for program planning and to track progress toward meeting program goals.

Bullying prevention and human trafficking awareness posters are posted on secondary school campuses to inform students about current issues. Various programs such as the Presidential Youth Fitness Program, including FITNESSGRAM, and the Orlando Magic's MAGIC Fit Program are implemented to help students improve their health and fitness.

100 schools participated in the American Heart Association's Jump Rope for Heart/Hoops for Heart program to engage students, parents and the community during the 2014-2015 school year. In addition, all 22 high schools and ninth grade center sites were provided with the American Heart Association CPR in Schools kits that enabled health and physical education students to learn the core skills of CPR, AED and choking relief. 110 elementary physical education teachers were provided with CPR Anytime Personal Learning Programs to help them review their CPR, AED and choking relief skills.

The WalkSafe curriculum is implemented in elementary schools to decrease pedestrian injuries, increase physical activity and encourage the use of walkable environments. Schools participate in the National Walk to School and Bike to School Days. WalkSafe participation in OPCS elementary schools increased 121% in the past year and Orange County was the best performing county statewide.

### **Pillar III: Effective Environmental and Sustainability Education**

**Provide examples of interdisciplinary learning about the relationships between dynamic environmental, energy and human systems. Examples may include innovative environmental and sustainability curriculum (instruction and assessment); district environmental education programs and opportunities; career pathways; professional development for faculty and staff; and extra-curricular activities.**

#### **Aviation and Aerospace Elementary Magnet**

This program provides an enhanced curriculum focusing on science with connections to the worlds of aviation and aerospace. Students learn science content through hands on, and minds on experiments. These take place in a science lab and the regular classroom.

#### **STEM Elementary Magnet**

The STEM program provides a foundation for students who are interested in enhancing their knowledge and skills in Science, Technology, Engineering, and Math. The critical thinking skills cultivated in this program prepare students for higher education and 21st Century careers. The program provides hands-on experiments and activities focused on real world applications. Technology classes are focused on the integration of cross-curricular content using digital tools to solve problems and engineer innovative products.

#### **Middle Years International Baccalaureate (MYP) Program Magnets**

The MYP is designed to help students develop the knowledge, understanding, attitudes and skills necessary to participate actively and responsibly in a changing world. The MYP is internationally recognized and encourages students to embrace and understand the connections between traditional subjects and the real world, and become critical and reflective thinkers. The program consists of eight subject groups integrated through five areas of interaction that provide a framework for learning within and across the subjects: Approaches to Learning, Community and Service, Human Ingenuity, Environments and Health and Social Education.

#### **Advanced Engineering Applications (AEA) High School Magnet**

The AEA Magnet includes an introduction and thorough exploration of the broad spectrum of traditional engineering fields as well as the emerging disciplines in the physical, social, and biological sciences. The new face of engineering requires verbal and written communication skills in addition to an in-depth understanding of complex mathematics and science concepts. Interdisciplinary projects and lessons drive the curriculum to stimulate student interest and involvement. Lessons engage students by using teamwork, problem solving, and the day-to-day practice of the scientific method, which is practiced by engineers every day. Emphasis is placed upon the humanities and social sciences to help develop judgment and curiosity among students.

#### **Agriscience Academy High School Magnet**

Through participation in the Agriscience Academy program, students understand and contribute to the future of agriculture and human life on our planet. The program is built upon basic Agriculture

curriculum yet goes well beyond this scope by promoting more in-depth study through the use of technology. The program offers two pathways for students: (1) plant life and biotechnology with the opportunity for dual enrollment in the Horticulture program at Valencia College and a student internship with the local University of Florida Research Center and (2) animal husbandry with the incorporation of technology leading to a career in animal care or veterinary science.

#### **Aviation and Aerospace Engineering High School Magnet**

The Aviation and Aerospace Engineering Magnet provides a rigorous college preparatory curriculum coupled with relevant career-related electives and enrichment activities that allow students to experience first-hand the fields of aviation and aerospace engineering. Integrated learning, honors and Advanced Placement coursework, as well as field trips, site visits and possible apprenticeships and internships provide the foundation for student preparation.

#### **Engineering, Science and Technology (EST) High School Magnet**

The EST Magnet is designed to provide students with academically rigorous and meaningful experiences in engineering and computer-based design. Engineering majors complete curriculum from Pathways to Engineering progression developed by Project Lead the Way and Embry-Riddle University's Aerospace Engineering Career Academy. Technology majors will delve into the world of 3D Animation, Graphic Design or Gaming and Simulation Programming and have the opportunity to earn up to six separate industry certifications. EST students work in teams on the EST STEAM project which simulates the research, development and marketing aspects of the modern engineering and technology company.

#### **Global Technologies High School Magnet**

The Global Tech magnet is an AP intensive program geared towards preparing students for higher education while providing exposure to several technology-based industries such as: Modeling and Simulation, Engineering, Robotics, Electronic Arts, and Computer Science. Students learn about the systems used in the high tech worlds of computer graphics, medical imaging, information technologies, web and network design, and entertainment or military simulations.

#### **Laser Photonics Academy High School Magnet**

The theme of the Laser Photonics Magnet Program is "Pinpoint Your Future through Laser and Photonics." The program provides students with exciting scientific experiences through unique teaching methods focused on understanding the application of electronic, fiber optic, photonic, and laser principles. The hands-on learning prepares students for real-world projects and practical applications. The program curriculum is supported by expertise through partnerships.

#### **Medical Careers High School Magnet**

The Medical Careers Magnet prepares motivated students for a future in the dramatically expanding fields of medicine and healthcare related careers. The program combines examining the structures and interactions of the human body systems and exploring the prevention, diagnosis, and treatment of disease. The program culminates in the opportunity to spend an entire semester participating in career shadowing and clinical experiences in healthcare fields that include dentistry, vision care, veterinary medicine, emergency medicine, radiology, physical therapy, occupational therapy, pharmacy, nursing, pediatrics, labor and delivery, cardiology, and surgery.

#### **Veterinary Animal Science and Services High School Magnet**

The program prepares students for employment or advanced training in the veterinary and animal science and services industry. The program focuses on broad transferable skills and stresses understanding and demonstration of the following elements of the animal science industry: animal species characteristics, nutrition, parasitology, epidemiology reproduction, principles of community and governmental regulations, safety and environmental issues.

**Demonstrate how your district uses the environment and sustainability as a context for learning science, technology, engineering and mathematics content, knowledge and thinking skills.**

The incorporation of environment and sustainability in STEM curriculum can be found throughout OCPS. Some district examples include:

Wekiva High School

The STEM staff at Wekiva High School is integrating environmental and sustainability education with a hands on curriculum approach. They are incorporating a project where 244 students in grades 9-12 are building and implementing a model recirculating system to demonstrate sustainable farming through aquaponics. The project-based learning opportunities are being integrated into the school curriculum, including in STEM coursework which will enhance the agriculture, culinary arts, engineering, and laser photonics career programs. Aquaponics is the combination of aquaculture with hydroponics in a symbiotic system. Environmental and economic benefits can be seen in water conservation and the rate of production. Aquaponics offers the ability:

- to grow plants when soil is not an option to grow food;
- to grow plants out of season and grow crops close to the markets;
- to produce low-carbon footprint food;
- to control or eliminate predation through growing in a controlled environment; and
- to locally grow high-quality fresh, natural and sustainable farm products for healthy living.

Jackson Middle School

The Jackson Middle School Science Club includes activities on environmental awareness, building and engineering challenges.

Lockhart Middle School

The science teachers teamed up in 2014-2015 to teach energy conservation lessons in their classroom. Through all these projects, an action plan was written to make the school more energy efficient.

Tildenville Elementary School

Tildenville Elementary School students participate in hands on learning through school gardens with their class to plant, grow and harvest vegetables. Valencia, University of Central Florida, Lockheed Martin and several other community engineering groups have come out to work with all of our students on special STEM projects throughout the year.

Castle Creek Elementary School

The school continues to practice and teach environmental education. The outdoor learning center has expanded, and added a nature trail in 2014-2015 as part of the learning center. Teachers are using Reading and Writing curriculum to teach animal habitats.

### Dommerich Elementary School

In 2014-2015 the STEM Lab teacher worked with a new class each week to tackle new challenges that supplement the science that happens in the regular classrooms. Third grade lessons were geared to challenge the students to explore the idea of solar energy as an alternative source for power to create a solar cooker. Students design and test their creations to use solar power to heat water and create s'mores, while also learning about renewable resources that can help reduce our current energy usage. Fourth grade taught students about renewable energy and renewable resources. Through the engineering design process, students learned how the use of alternative resources can power vehicles. This highlights the concept of energy conservation by encouraging the students to think of how other resources around can be utilized instead of depleting non-renewable forms of energy such as gas or coal.

### Project Lead The Way (PLTW)

A \$2 million grant from Lockheed Martin, began the 2015-16 school year with new STEM education programs from PLTW.

Through the grant, 40 schools will begin offering PLTW programs for the 2015-16 school year. Over the course of the grant, every OCPS elementary, middle and high school will have the opportunity to implement a PLTW program of study. Project Lead The Way (PLTW) is the nation's leading provider of K-12 science, technology, engineering, and math (STEM) programs.

Corner Lake Middle School shows how PLTW is using the environment and sustainability as a context for learning by incorporating recycling and renewable energy into the curriculum and includes a unit on renewable energy and building green homes.

**Describe how your district promotes civic/community engagement projects integrating environmental and sustainability topics (green technologies, career pathways, civic skills, community partnerships).**

### Philanthropic Strategic Plan

The Philanthropic Strategic Plan was championed by the school board and identifies unfunded district needs that are critical to accomplishing our vision. One of the eight goals is the Access to Science, Technology, Engineering and Mathematics (STEM) initiative.

The goal is to build a continuum of integrated science, technology, engineering and mathematics curricula for prekindergarten (PreK) through 12th-grade students that is research-based, standards-driven and classroom-tested.

The Corner Lake Middle School robotics teams and Future Farmers of America (FFA) are doing two projects one of which is a compost pile and milk recycling, the other is a clothing drive. The school is collecting unused milk and placing them in a refrigerator for students who want to drink them. The school is then taking the unused green waste, and creating a compost pile. In addition, clothes are being collected per hallway and separated into gently used and unusable. They are then sent to places that will reuse them.

### Agriscience

Agricultural education is a systematic program of instruction available to students desiring to learn about the science, business, technology of plant and animal production and/or about the environmental

and natural resources systems. The district has 16 programs between middle and high school and one post-secondary program.

These programs are made successful with the University of Florida Agriculture Research Education Center in Apopka and Agriculture Extension Center in the South, the Farm Bureau, and the Cattleman's Association who serve as strong partners and provide education, training and learning opportunities for our students. The Agristarts Inc. in Apopka also serves on Agriscience Education advisory boards and provide further learning opportunities for our teachers and student.

A Colonial High School student has been recognized for receiving the National award in the category of Small Animal Production and Care Division. In addition, FFA members from Colonial High School have also received recognition for their achievements as State winners in the Vegetable Evaluation Career Development, State Aquaculture Career Development and the State Environmental Science Career Development Events. Apopka High School FFA members won in the category of State Floriculture Career Development and Ocoee Middle School FFA members placed State for the Vegetable Evaluation Career Development Event.

Furthermore, another example of a successful agriscience program is Ocoee High School where agriculture biotechnology education is part of the curriculum which incorporates environmental science through the production of biodiesel. The biodiesel is used in the engine of the agriculture department tractor.

#### Enhanced School Environment

The Six Winter Garden Elementary Schools which were selected by Orlando Health Central in 2014 to have edible, sustainable school learning gardens donated to their schools through Orlando Health Foundation's "Growing Healthy Children" project continue to flourish. These schools are Maxey Elementary School, Dillard Street Elementary School, Lake Whitney Elementary School, Sunridge Elementary School, Tildenville Elementary School, and Whispering Oak Elementary School. This in-kind contribution includes design, engineering, material, labor, and construction of a shade structure, seating area, locked storage shed, twelve raised bed gardens, rain barrel and composter, fencing, wildflowers, fruit trees, irrigation, and a sculpture or other piece of art at each school location.

#### Faith-Based Partnerships

The number of faith-based organizations that have adopted a school to provide additional support to OCPS students has grown to 106.

The four basic messages to maximize student success by creating healthy conditions at school and in the home are good character, stay-in-school, say no to drugs or alcohol, and stop all bullying. Relationships are developed with students through a combination of activities such as after school & summer programs which provide enrichment activities for students, such as basketball leagues, robotic clinics, computer labs, etc.